STATEMENT OF WORK

AIR COMPRESSOR

1.0 INTRODUCTION

This Statement of Work describes the requirements for an oil-free Air Compressor to be provided to the Vibration and Acoustic Test Laboratory in NASA Johnson Space Center. This system will include water-cooled after cooler. This air compressor is used to drive the acoustic air modulators in the acoustic test chambers. This is a replacement of the obsolete old air compressor. It should be compatible to the space and all hardware connections in the existing compressor room without any modifications.

2.0 REQUIREMENTS

The vendor shall provide a turn-key system to meet all JSC's technical requirements as listed below in section 2.1, TECHNICAL REQUIREMENTS.

The new air compressor is an upgrade and replacement of the old 3000 CFM air compressor. The new system must be fitted in the same physical space inside the compressor room, and shall include all components and/or accessories need to perform the requirements listed in section 2.1, TECHNICAL REQUIREMENTS. The new system shall be built in a common base with an enclosure panels as needed to keep the acoustic noise level to minimum. The vendor should provide the installation, start up, training and acceptance test.

2.1 TECHNICAL REQUIREMENTS

*Output Capacity	4000 ±5% cubic feet per minute min, higher output preferred
Compressor Type	Oil-Free
*Working Air Pressure	50 psig min, higher pressure preferred
Discharged Air Temperature	70 °F max
Drive Motor	700 Hp max
Acoustic Noise Level	80 dBA max
Integral Base frame	Compressor components shell be built in a common base frame and it can be set on concrete floor directly
Compressor Controls	The unit should provide Start/Stop, Load/Unload, Emergency stop, and Reset test
Monitoring Status	The unit should display or readout of temperature, pressure, loaded or unloaded
Safety Status	The unit should indicate warning of oil temperature, oil pressure and automatic emergency stop
Remote Control	The system shall provide a remote monitor and switching capability, so that the compressor can be switched on or off, load or unload, and monitoring all other safety status.
Electrical Power	Facility will provide 480 Volt 3-Phase disconnect box with 1200 Amp breaker, couple feet away from the location

Chilled Water Supply	Facility will provide 2" chilled water supply and return lines pressure at 95 psi at 45 °F about 13 feet above ground next to the location
Compressed Air Header	Facility interface is 8" diameter stainless steel pipe, about 15 feet above the ground 3, 4 feet away from one end of the location
Space for the compressor	12' long with 3' work space on each end 6' wide with 6' isle on one side only 9' tall, nothing should be blocked above for overhead crane

Denote *: Value Characteristics that NASA may be willing to pay more for are: Higher air output than 4000 cubic feet per minute and higher working air pressure than 50 psig and still have the ability to satisfy the limitations of electrical power and physical space requirements as stated in above

3.0 DELIVERABLES

1 each of 4000 CFM air compressor on a base frame

3.1 CONTRACTOR TASKS

1. Installations and Checkout

The vendor shall provide all on-site installation, start up, checkout, and at least one day hands-on training. So that the operator is capable to turn on and off the compressor and directing the control panel with all functions and displays.

The installation should include the pipe connection of discharged outlet to the facility compressed air header. The size of the header is 8" diameter about 15 feet above ground, 3, 4 feet away from one end of the location.

Chilled water for cooling, vendor shall provide all piping to connect from facility supply to the compressor.

The vendor should connect the compressor drain lines to facility floor drain.

The vendor should connect the power line from facility breaker box to the compressor and meet or exceed National Electric Code (NEC). All the power for this unit will be supplied through the facility power disconnect breaker box of 480 Volt 3-phase 1200 amp. If a motor starter box is required for the system and it should be included in the air compressor unit.

2. Documentation

The vendor shall provide a minimum of two copies of the operation manual, maintenance manual, and associated drawings. Electronic media on compact disk in common format, such as MS office or Adobe Acrobat Reader is acceptable.

3.2 WARRANTY

A. The vendor shall provide a minimum of 1 year free of charge on-site complete system warranty on parts and labors installed against defects in material and workmanship.

B. Optional with additional years on-site warranty of the system on parts and labors.

3.3 DELIVERY SCHEDULE

All items must be delivered to our facility no later than August 31, 2009; installation, training and acceptance test must be completed no later than two weeks after the receiving on site. Facility ragging crew will unload the unit and set on the spot where the compressor will be installed.

3.4 ACCEPTANCE

The vendor must demonstrate the system with the full capacities per our facility's Task Performance Sheet (TPS) for the acceptance and training (one day minimum) after the completion of the installation.